The aim of this study was to investigate the relationship between serum ghrelin concentration with markers of insulin resistance and obesity in type 2 diabetes. Evaluation of the possible association of the obesity in type 2 diabetes and gene polymorphism. The results show that the Levels of ghrelin (mean ± S.E) ghrelin was significantly lower in obese type 2 diabetes compared to control group (p<0.0001) and Levels of ghrelin did not differ between the 49 men and the 59 women. Smoking history was significantly. ghrelin showed significant negative correlation with BMI (r= -0.62), Waist/Hip ratio(r = -0.68), SBP (r=-0.53) and DBP(r=-0.43). A significant negative correlation between Ghrelin level and FBG (r= -0.55), HbA1c (r = -0.60), Insulin (r= -0.44) and insulin resistance index (HOMAIR HOMA-IR(r= -0.46). There was an inverse correlation between Ghrelin level and cholesterol(r= -0.15), triglycerides(r= -0.38) and VLDL(r= -0.38) respectively, while there is no significant correlation with LDL. As well as there were significant positive correlation between Ghrelin level and HDL. A significant negative correlation between Ghrelin level and Systolic blood pressure and diastolic blood pressure (r= -0.53 and r=-0.43) was observed in the obese type 2 diabetes groups.